

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: M. YOSHINO et al.	Confirmation No.:	8272
Serial No	: 10/671,669	Art Unit:	3683
Filed	: September 29, 2003	Examiner:	Lan NGUYEN
For	: BRAKE SYSTEM AND BRAKE DEVICE FOR USE WITH AUTOMOBILES		

REPLY BRIEF UNDER 37 C.F.R. § 41.41(a)(1)

Commissioner for Patents
U.S. Patent and Trademark Office
Customer Window, Mail Stop Appeal Brief - Patents
Randolph Building
401 Dulany Street
Arlington, VA 22314

Sir:

This Reply Brief is in response to the Examiner's Answer dated November 13, 2006, the period for reply extending until January 16, 2007 (January 13, 2007 being a Saturday and January 15, 2007 being a Federal Holiday).

The Examiner maintains the grounds of rejection advanced in the final rejection of claims 1-3 and provides arguments in support thereof.

Appellants note that this Reply Brief is being filed under 37 C.F.R. 41.41(a)(1) and is directed to the arguments presented in the Examiner's Answer, and therefore must be entered unless the final rejection is withdrawn in response to the instant Reply Brief. With regard to this Reply Brief, Appellants note that it is addressing points made in the Examiner's Answer and not repeating the arguments set forth in the Appeal Brief.

It is respectfully submitted that the Appeal Brief filed March 20, 2006, has fully addressed the requirements for patentability of the pending claims. Accordingly, the herein-contained remarks are merely supplemental to the Appeal Brief filed on March 20, 2006, and all previously-proffered arguments in the Appeal Brief are incorporated herein. In order to facilitate review of this Reply Brief and for the sake of brevity, the present remarks do not include a discussion of all rejected claims or points raised by the Examiner, and such is not to be considered an acquiescence to the Examiner's rejections or remarks.

Proportional Pressure Controller Does Not Control Pressure Of Pressurized Braking Liquid

On page 7 of the Appeal Brief, Appellants argued that TAKATA lacks any disclosure of a proportional pressure controller having a spool, which proportional pressure controller controls the pressure of *the pressurized braking liquid*. Appellants respectfully submit that the Examiner's comments on pages 4 and 5 of the Answer misstate Appellants' position regarding this issue.

Appellants noted in the Appeal Brief that the "pressurized braking liquid" is defined in the claim as the pressurized braking liquid *which is accumulated in the accumulator*. However, contrary to the Examiner's comments, Appellants did not take the position that the pressure of the pressurized braking liquid is controlled by the proportional pressure controller *while the pressurized braking liquid is contained in the accumulator*. Instead, Appellants are merely noting that the "pressurized braking liquid" which is *at some point* accumulated in the accumulator is *the same* "pressurized

braking liquid" which has its pressure controlled by the proportional pressure controller (i.e., at some point along the flow path of the braking liquid from the accumulator).

In contrast, as noted in the Appeal Brief, the dynamic pressure piston 9 and integral master cylinder piston 10 in TAKATA control the pressure of the braking liquid in the *static pressure line* (i.e., the line to brakes 11), while *the braking liquid from the accumulator ACC* is only provided through the dynamic pressure chamber 7 to brakes 12. Thus, the proportional pressure controller in TAKATA does not control the pressure of pressurized braking liquid which is passed through the accumulator ACC, since the accumulator ACC is not on the *static pressure line* (i.e., the line to brakes 11).

In other words, the piston 9, 10 at the most controls the pressure of the braking liquid in the *static pressure line* to brakes 11 (which braking liquid is located to the left of the master cylinder piston 10 as shown in the Figures), and does not control the pressure of *the pressurized braking liquid from the accumulator ACC*, which passes through the dynamic pressure chamber 7 along the dynamic pressure line to brakes 12.

Push Rod Does Not Move Between Positions Spaced From Spool and Contacting Spool

On page 8 of the Appeal Brief, Appellants argued that TAKATA lacks any disclosure of a *push rod which moves between positions spaced from and contacting a spool*. Appellants note that the Examiner's comments on page 5 of the Answer appear to acknowledge that the push rod 8 of TAKATA does not contact the spool 9 under *normal operating conditions*, but only under a braking system failure or malfunction condition. However, the Examiner states that "Claim 1 does not specify the condition of

normal or emergency working condition.”

As noted in the Appeal Brief, under normal operating conditions the push rod 8 of TAKATA does not move between positions spaced from the spool 9 and contacting the spool 9. In this regard, Appellants note that in TAKATA the push rod 8 is only disclosed as contacting the spool 9 when there is a *failure* within the braking system (i.e., a failure in the dynamic pressure line).

Further, Appellants submit that the Examiner can not reasonably take the position that TAKATA would anticipate the subject matter recited in claim 1 *if the device disclosed in TAKATA were to break or malfunction*. In this regard, Appellants direct the Examiner’s attention to *Scaltech Inc. v. Retec/Tetra L.L.C.*, 48 USPQ2d 1037,1041 (Fed. Cir., 1998) (“We further note that an accidental or unwitting duplication of an invention cannot constitute anticipation.”); *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U.S. 45, 66 (Sup. Ct., 1923) (“if it had done so under unusual conditions, accidental results, not intended and not appreciated, do not constitute anticipation.”); *Topliff v. Topliff*, 145 U.S. 156, 161 (Sup. Ct., 1892) (“It is not sufficient to constitute an anticipation that the device relied upon might, by modification, be made to accomplish the function performed by the patent in question, if it were not designed by its maker, nor adapted, nor actually used, for the performance or such functions.”); *Clough v. Gilbert & Baker Mfg.*, 106 U.S. 166, 196 (Sup. Ct., 1882) (“accidental and not part of the law of the structure The structure was not designed for the same purpose . . . no person looking at it or using it would understand that it was to be used in the same way . . . and it is not shown to have been really used and operated in that way.”).

Does Not Include Recited Control Modes Of Proportional Pressure Controller

On pages 9 and 10 of the Appeal Brief, Appellants argued that TAKATA lacks any disclosure of the recited *control modes of the proportional pressure controller*. Appellants note that the Examiner's comments on page 5 of the Answer appear to support Appellants' position regarding this issue.

As noted in the Appeal Brief, assuming, arguendo, that the push rod 8 contacts the spool 9 under some system failure condition in the system of TAKATA, Appellants submit that there is no time during which the proportional pressure controller controls the pressure of the pressurized braking liquid *in accordance with only the stroke signal, and free from the motion of the push rod*. In this regard, Appellants submit that, since movement of the push rod 8 directly affects the volume of the dynamic pressure chamber 7 and the pressure of the fluid therein, there is *no time during which* the proportional pressure controller controls the pressure of the pressurized braking liquid in accordance with *only* the stroke signal in the system of TAKATA.

This understanding of TAKATA (i.e., that both the stroke signal and the motion of the push rod affect the control pressure) appears to be supported by the following statements of the Examiner: "the dynamic pressure in chamber 7 is used to move spool 9 and to counteract the force of push rod 8 in the situation when push rod 8 does not contact spool 9. TAKATA further shows that the pedal stroke is used for normal operating condition when push rod 8 is not contacting spool 9 and also for system failure when push rod 8 is contacting spool 9"

As also noted in the Appeal Brief, assuming, arguendo, that the push rod 8 contacts the spool 9 under some system failure condition in the system of TAKATA, Appellants submit that, after the push rod 8 contacts the spool 9 (under some system failure condition), the proportional pressure controller would *no longer* control the pressure of the pressurized braking liquid in accordance with the stroke signal, since there would have been a failure in the dynamic pressure line, as explained above. Instead, the proportional pressure controller (push rod 8 and spool 9) of TAKATA would control the braking liquid in the static pressure line, rather than a dynamic pressure chamber, after the push rod 8 contacts the spool 9. Accordingly, it would appear that after such a system failure, the pressure of the liquid would be controlled in accordance with *only* the motion of the push rod 8 (i.e., by contact with the spool 9), and not in accordance with both the stroke signal and the motion of the push rod.

Providing A Restoring Spring Would Effectively Destroy The Teachings Of TAKATA

On pages 11 and 12 of the Appeal Brief, Appellants argued that providing a restoring spring in the system of TAKATA, as suggested by the Examiner, would effectively *destroy the teachings* of TAKATA. Appellants respectfully submit that the Examiner's comments on page 6 of the Answer misstate both the teachings of TAKATA and Appellants' position regarding this issue.

As stated in the Appeal Brief, Appellants submit that providing a restoring spring in the system of TAKATA, as suggested by the Examiner, would effectively *destroy the teachings* of TAKATA with respect to the disclosed benefits of its braking system and the preferred operation of the push rod 8, which receives counterforce from the

dynamic pressure in chamber 7. Note column 4, lines 38-42.

Appellants note that TAKATA discusses different types of conventional brake systems at column 1, line 7 through column 2, line 9. Further, column 1, lines 58-68 of TAKATA discusses a conventional brake system having a restoring spring. However, TAKATA discounts, and effectively teaches away from, these conventional brake systems. Note column 1, lines 9-14: "But any of the conventional brake device of this type has demerits one way or another though it may have some merits. Namely, among conventional systems, many of them satisfy some of the below-described requirements, but there is none which satisfies all of them."

Appellants submit that the discussion at column 1, lines 58-68 of TAKATA effectively acknowledges and dismisses the use of a restoring spring: "As one solution to these problems, it has been proposed to control the relation between the treading force and pedal stroke by use of a spring. . . . But it is necessary to provide means for removing the reaction force of the spring in case the dynamic pressure line should fail"

Contrary to the Examiner's comments in the Answer, Appellants do not contend that TAKATA teaches removal of the restoring spring from the system discussed at column 1, lines 58-68. Instead Appellants submit that TAKATA discounts, and effectively teaches away from, such a restoring spring system. In this regard, TAKATA instead teaches the disclosed benefits of its own braking system (without a restoring spring) and the preferred operation of the push rod 8, which receives counterforce from the dynamic pressure in chamber 7.

Appellants respectfully submit that the rejection of claim 1 under 35 U.S.C. § 102(b) over TAKATA is improper and that the rejection of claims 2 and 3 under 35 U.S.C. § 103(a) over TAKATA in view of LEIBER et al. is improper. Accordingly, Appellants respectfully request that the Board reverse the decision of the Examiner to reject claim 1 under 35 U.S.C. § 102(b), and to reject claims 2 and 3 under 35 U.S.C. § 103(a), and to remand the application to the Examiner for allowance.

Appellants respectfully submit that each and every pending claim of the present application meets the requirement for patentability under 35 U.S.C. § 102(b) and § 103(a), and that the present application and each pending claim are allowable over the prior art of record.

Should there be any questions, any representative of the U.S. Patent and Trademark Office is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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